

## Permatuff™

### Polyweave reflective faced glasswool insulation blanket for commercial and residential metal roofs

#### Description

Permatuff™ is a glasswool blanket containing up to 80% recycled content, faced with a medium or extra heavy duty, puncture-resistant polyweave laminate. The reflective foil laminate features a 150mm overlap along the left hand side edge.

#### Application

Permatuff™ insulation blanket is suitable for use in residential and commercial metal clad roof insulation applications. It provides thermal and acoustic properties by reducing heat loads entering a building and minimising the internal reverberation and flow of unwanted nuisance noise generated from adjacent buildings and/or the external environment.

Additionally, the Sisalation® reflective polyweave foil component of Permatuff™ insulation blanket aids in minimising the risk of condensation that can form in metal roofs.

#### Product limitations of use

- Not to be used/exposed to weather in any condition including prior, during and after installation
- Not suitable for applications where high humidity is present within building (wet climates for long periods, contact Fletcher Insulation for other products for this application)
- This product cannot be classified to AS 1530.1 as an assembly, and will not be suitable where non-combustible material is required, however, where such requirement exist, laying the required blanket and foil separately may comply
- The EHD faced product cannot be used in exposed/lining applications where a group number is required in accordance with AS 5637.1(NCC V1 Amdt 1 C1.10(4) NCC 2022 V1 S7C4)
- Not to be suitable for under tiled roof
- Suitable roof ventilation must be installed in accordance with the requirements of the NCC
- Modifications not permissible, as suitability &/or compliance may be compromised
- If product is compressed it will reduce the thermal performance of the product, it is recommended where allowable that a Roof Razor® is used to allow the product to recover to its nominal thickness.

#### Features and benefits

Combines two effective types of insulation to provide one product solution	→	Saves time and costs toward your overall construction project.
Available in a range of thicknesses	→	Effective in meeting the NCC 2022 energy efficiency provision.
Reduces the risk of condensation forming under metal roofing	→	Helps prevent condensation forming that may create mould issues or damage to the building.
Offers both thermal and acoustic properties	→	Provides thermal R-value and acoustic relief for a more comfortable work and living space.

### Product data

Facing Foil Type	Material R-value m <sup>2</sup> K/W	Thickness mm	Width mm	Length m	m <sup>2</sup> per roll	Old product code	New product code
Sisalation® Multipurpose MD (432) 150mm lap	R1.3	55	1200	15	18	-	4020322
				20	24	-	4020323
	R1.4	60	1200	15	18	-	4020324
				20	24	-	4020325
	R1.8	75	1200	15	18	-	4020326
	R2.5	100	1200	10	12	-	4020327
	R3.0	130	1200	10	12	-	4020328
	R3.2	130	1200	10	12	-	4020329
R3.6	130	1200	6.5	7.8	-	4020330	
Sisalation® Multipurpose EHD (456) 150mm lap	R1.3	55	1200	15	18	905151	4005960
			1200	20	24	905201	4005965
	R1.8	75	1200	15	18	905156	4005961
	R2.5	100	1200	10	12	905205	4003852

### Fire hazard properties

Permatuff™ insulation blanket exhibits the following characteristics when tested in accordance with the following standards:

Property	Test method/standard	Result
Combustibility (unfaced Pink® Building Blanket only)	AS 1530.1	Non-combustible
Flammability (facing foil)	AS 1530.2	≤ 5
Early Fire Hazard Indices	AS/NZS 1530.3	0
Ignitability Index		
Spread of Flame Index		
Heat Evolved Index		
Smoke Developed Index		2 (MD) 1 (EHD)
BAL Compliance	AS 3959	Low-40
Group Rating	AS 5637.1	Group 1 (MD only)

### Physical properties

Property	Test method/standard	Result	Unit
Thermal Resistance R-value	AS/NZS 4859.1	Complies	m <sup>2</sup> K/W
Moisture Absorption	When exposed to environmental conditions of 50°C and 95% relative humidity for four days	<0.2	% by volume
Maximum service temperature	ASTM C411/C447	Glasswool 340 Polyweave facing 70	°C

### Compliance NCC 2019

- Complies with AS/NZS 4859.1 as referenced in NCC 2019, Volume 1 Clause J1.2(a) and NCC 2019, Volume 2 Clause 3.12.11
- When tested to AS/NZS 1530.3 this product does not exceed the 'Spread of Flame' or 'Smoke Developed' indices as required by NCC 2019 Volume 1, Specification C1.10 Clause 7 for insulation materials
- Complies with the requirements of AS3959 Bushfire Attack Level Low-40 under metal sheet roofs.

### Compliance NCC 2022

- NCC 2022 Complies with AS/NZS 4859.1 as referenced in NCC 2022, Volume 1 Clause J4D3 (1) and NCC 2022, Volume 2 ABCB Housing provisions Clause 13.2.2
- When tested to AS/NZS 1530.3, this product does not exceed the 'Spread of Flame' or 'Smoke Developed' indices as required by NCC 2022 Volume 1, S7C7 for insulation materials
- Complies with the requirements of AS 3959 Bushfire Attack Level Low-40 under metal sheet roofs.

### Health and safety

Permatuff™ is manufactured from FBS-1 Glasswool Bio-Soluble Insulation®. Refer to Fletcher Insulation SUIs for more information.

### Environmental properties

The glasswool component of Permatuff™ building blanket is manufactured from up to 80% recycled content which would otherwise go into landfill and be unsuitable for alternative manufacturing processes.

Fletcher Insulation avoids the use of Ozone Depleting Potential (ODP) substances in the manufacture or composition of its FBS-1 Glasswool Bio-Soluble Insulation® and Sisalation® reflective foil products.

The use of Permatuff™ provides the use of Zero ODP insulation while also ensuring that no harmful levels of Volatile Organic Compounds (VOCs) are released. This allows the incorporation of environmentally preferable insulation whilst also maintaining indoor air quality.

### Maintenance and conditions of use

- Product should be kept dry at all times, not to be exposed to weather in any condition including prior, during and after installation
- Foil facing shouldn't be in contact with any water or alkaline materials such as wet concrete etc
- Use of pressure cleaners or mineral based cleaners must not be used on the facing product
- Where insulation can be inspected, ensure any tears in the facing are repaired with appropriate tape as highlighted in the product's installation guidelines
- When product is installed as per the product installation guidelines, no further maintenance is required for this product.

### Technical specification

When specifying, please state the following:

The insulation material must be Fletcher Insulation Permatuff™ with a \_\_\_\_\_ (specify medium or extra heavy duty) polyweave facing with a Material R-value of R \_\_\_\_\_ m<sup>2</sup>K/W (specify Material R-value) at a nominal thickness of \_\_\_\_\_ mm (specify nominal thickness)

The following performance attributes must be specified:

- Product must be FBS-1 Biosoluble
- Product must recover after removed from its packaging to the requirements of AS/NZS 4859.1

### Installation instructions

For the correct installation method, follow the Installation Guidelines available from [insulation.com.au](http://insulation.com.au)

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